Space Technology

Innovation

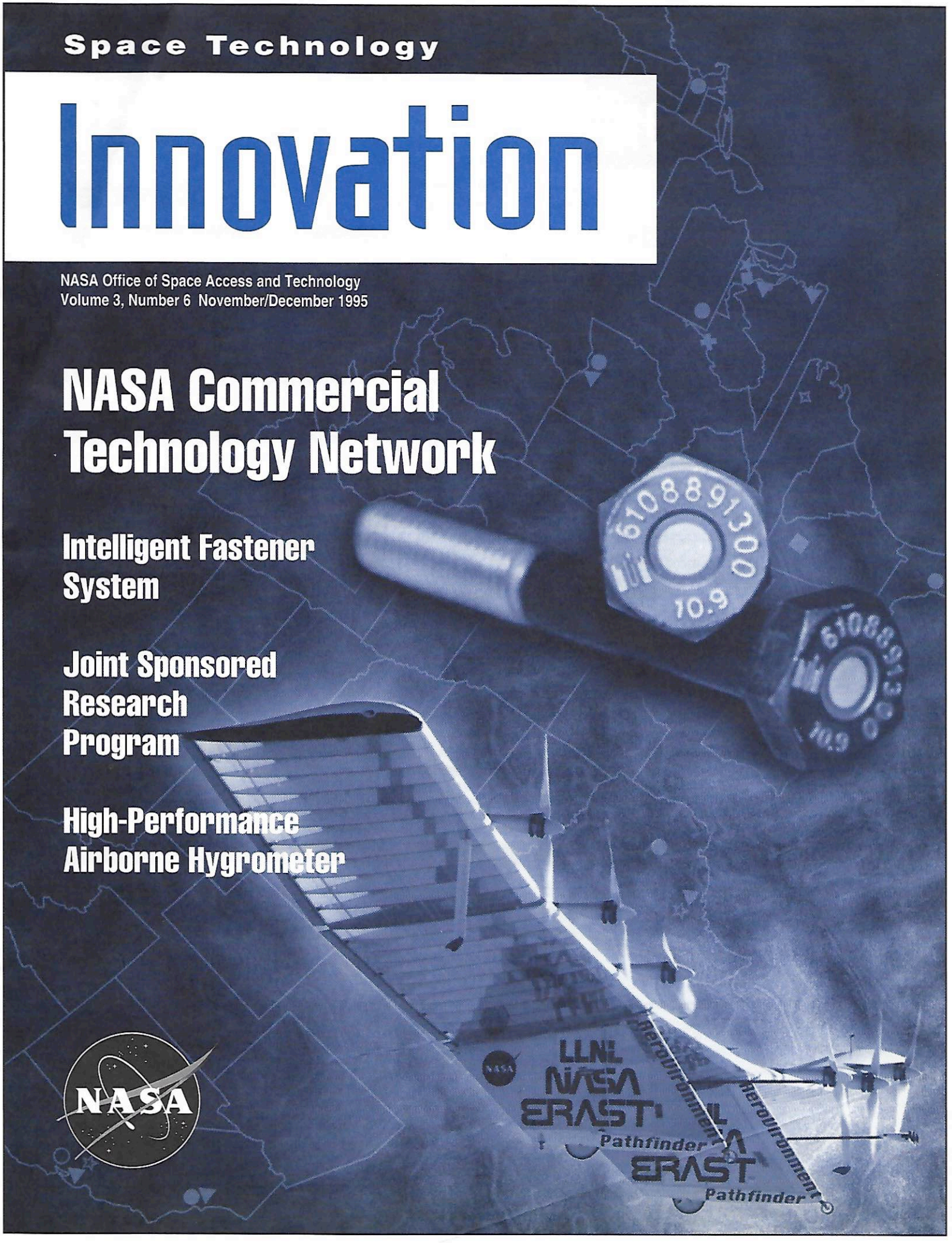
NASA Office of Space Access and Technology
Volume 3, Number 6 November/December 1995

NASA Commercial Technology Network

Intelligent Fastener System

Joint Sponsored Research Program

High-Performance Airborne Hygrometer



The Mid-Continent

With its headquarters at the Texas Engineering Extension Service (TEEX) of the Texas A&M University System in College Station, Texas, the Mid-Continent Technology Transfer Center (MCTTC) is a consortium that provides public and private affiliates with the tools, expertise and resources to grow and compete on a national level. Major consortium participants include TEEX's Technology and Economic Development Division, the University of Houston–Clear Lake, the Midwest Research Institute, SaraTech Finance, Inc., and the Economic Council of St. Louis County.

MCTTC facilitates technology commercialization by identifying technology markets, resolving industry problems and matching the mission of federal laboratories with the interests of the private sector. The strength of MCTTC and its staff has paid off in numerous fields. Recent successes include aid in the development of a machine that heat-treats metals in a fluidized bed—a process that is unique because the entire treating process takes place within an enclosed space in the machine instead of in open tanks. The machine also can be used for treating metal powders in the fast-growing powders industry. MCTTC also has helped develop a revolutionary autogyro, winged aircraft that combines the vertical takeoff and landing capabilities of a helicopter with the speed and altitude capabilities of fixed-wing aircraft. MCTTC facilitated a relationship between a company and NASA's Ames Research Center that has resulted in funding from the Small Business Innovation Research (SBIR) program.

The Far West

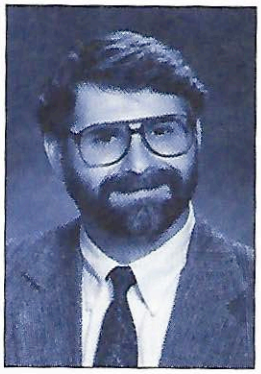
The Far West Technology Transfer Center, headquartered at the University of Southern California in Los Angeles, provides regional industry with access to NASA and federally developed technologies. The center serves businesses in an eight-state region and has in place a robust network of affiliate offices.

The center focuses on linking companies with NASA and federal laboratories to license technology and/or enter into cooperative development arrangements. It assists companies with Memorandums of Understanding, Technology Cooperative Agreements (TCAs), Cooperative Research and Development Agreements and Space Acts.

The Far West Technology Transfer Center has in place a number of alliances with state and local government agencies (for example, economic development agencies and the Small Business Administration), regional technology alliances and private enterprise. Recently, the center hosted a Robotics Roundtable that brought together experts from the Los Angeles County Fire Department, the Jet Propulsion Laboratory and the California State Urban Search & Rescue Program. This roundtable identified many problems being faced by search-and-rescue professionals that NASA or federal technology might solve.

The center strengthens the links it builds and expands the market for NASA and federal technology by providing specialty services. Market analyses, strategic alliance building and technology evaluations are examples of services provided directly to firms that are in the process of adopting NASA or federal technology.

The first quarter of this year increased client revenues by more than $6 million, saved or created more than 60 jobs, secured more than $80,000 in funding and provided a cost savings of more than $120,000. ■



From the Mid-Continent: Gary F. Sera, MCTTC Director

Interested in contacting a Regional Technology Transfer Center? See page 23.

Joint Sponsored Research Program

The NASA Commercial Technology Network has embraced an effective mechanism that makes it easier for industry to partner with NASA on commercially valuable technologies with industrial applications. Based on authority provided in NASA's founding legislation, the Joint Sponsored Research Program permits the Agency to provide resources—including funds, services, equipment, information, intellectual property or facilities—through alliances between government (NASA) and non-government partners. This leveraging of resources enables the efficient use of the taxpayers' money and supports national competitiveness.

Several private companies have acknowledged that these alliances are valuable to the companies involved. Ray Morgan, CEO of AeroVironment in Monrovia, California, has said, "The Alliance has

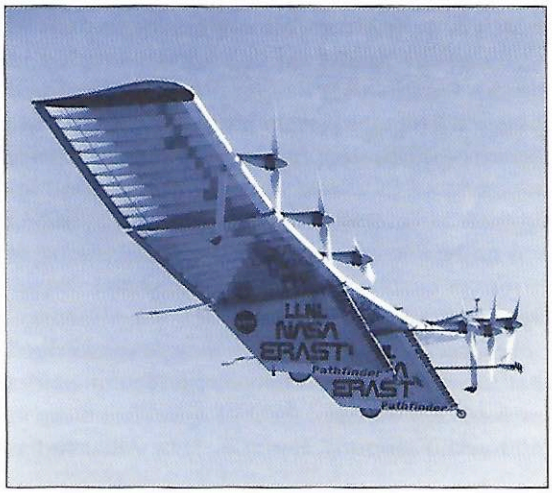
From the Far West: Robert L. Stark, Far West RTTC Director

provided a unique opportunity for competitors in an industry that is noted for 'Not Invented Here Syndrome' to share information for mutual benefit . . . it is a rebirth of the old traditions that made the United States a world leader in the aeronautical arena. . . ."

There currently are four NASA joint sponsored research partnerships in place. One alliance, managed out of the Langley Research Center in Hampton, Virginia, involves 61 general aviation companies and organizations. Its goal is to advance and revitalize the U.S. general aviation industry. This "revitalization" will result in job growth through increased manufacturing, increased flight operations, and use of more advanced and efficient technology.

Another alliance, managed out of the Dryden Flight Research Center in Edwards, California, involves seven small aircraft companies. This alliance provides these companies with the opportunity to share knowledge and technology to rapidly develop unpiloted aerial vehicle technologies. One of the alliance member's unpiloted, remotely controlled solar-powered Pathfinder aircraft recently reached a record altitude of 50,500 feet. These technologies have numerous potential commercial applications in telecommunications, disaster assessment and weather tracking.

Another joint sponsored research partnership is a consortium managed out of the Ames Research Center in Moffett Field, California, involving a major aircraft company and a university. Together, they developed a new technology that will predict the performance of current and future aircraft.



The Pathfinder, an all-wing aircraft weighing less than 600 pounds, is being evaluated in a program to develop technologies for environmental sampling missions.

Yet another consortium, also managed by Ames, involves six aircraft companies, seven universities, the Navy and the State of Virginia. This partnership has successfully developed an aircraft design tool that has already been used to develop two transport aircraft and has spawned a start-up software company with three employees.

More joint collaborations such as these are being developed across the country by NASA field centers. These joint programs accelerate technology development and the commercial use of existing technology. ■

For more information about the Joint Sponsored Research Program, contact Kevin Barquinero at NASA Headquarters.
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Please mention that you read about it in *Innovation*.

NASA Incubators Continue to Grow

NASA's two-year program of sponsoring technology commercialization centers continues to grow; the third year begins with the establishment of the Mississippi Enterprise for Technology at the Stennis Space Center. Along with NASA's original centers at the Johnson Space Center and the Ames Research Center, these incubators are effectively creating partnerships between entrepreneurs and NASA technology. NASA recognizes that small entrepreneurial businesses are America's engines for economic growth. The success of these incubators demonstrate that NASA technology can fuel this engine.

The mission of these centers is to incubate start-up companies commercializing NASA technology. While they offer traditional business incubator services such as low-cost executive office and related business services, the critical value is the onsite staff resources available to meet the daily needs of the tenant companies. Locally managed resources directed to local priorities have proven critical to their success. Each center has staff expertise, including business management, marketing and strategic planning. This in-house expertise is combined with pro bono community support for legal, accounting and financial advice.